CHAPTER 1
INTRODUCTION

“This chapter defines the path which has to be taken while reading this thesis. Various sections of this chapter contain introductory material of research work viz., Introduction to stock markets, research motivation, research objectives and research methodology adopted in the study. The last section is dedicated to the limitations of the study”.

The segment of a financial market of an economy from long-term capital is raised via instruments such as shares, securities, bonds, debentures, mutual funds is known as the security market of that economy. A security market has components such as a security regulator (Like SEBI in India), stock exchanges, different share indices, brokers, FIIs, jobbers, etc. There are different kinds of transactions which take place in a security market such as badla, reverse badla, future trading, private placement, etc.

1.1 Primary and Secondary Markets: - Every security market has two complementary markets - primary and the secondary. The market in which the instruments of security market are traded (procured) directly between the capital-raiser and the instrument purchase is known as the primary market. As for example, a share being directly purchased by anybody from the issuer this may be the company itself. The person is known as the primary shareholder. The market where the instruments of security market are traded among the primary instrument holders is known as the secondary market. Such transactions need an institutionalized floor for their trading which is made available by the stock exchanges.

1.2 Stock Market: - Stock Market refers to the market provided by different stock exchanges to the securities which include share, debenture, bond and other government securities. It is a market place where buyers and sellers of shares and securities admitted to dealings, can do business and competitive open prices.

The AMSTER DAMBERUS in the world’s oldest stock exchange, where corporate stocks were dealt in 1585 AD. Thereafter, dealings in stocks stated in London (1975), New York Stock
Exchange (1810), Brussels Stock Exchange (1801), Paris Bourse Stock Exchange (1808) and so on.

1.3 **Stock Exchange:** - The Stock Exchange is an organized market for purchase and sale of listed industrial and financial securities. The securities traded on Stock Exchange include shares and debentures of public limited companies, Government securities, etc. It serves the following major functions:

- Makes a floor available to the buyers and sellers of stocks and liquidity comes to the stocks. It is the single most important institution in the secondary market for securities.
- Makes available the prices of trading as an important piece of information to the investors.
- By following institutionalized rules and procedures, it ensures that the participants in the stock market live up to their commitments.
- Passes updated information to the enlisted companies about their present stockholders (so that they can pass on dividends etc., to them).
- By publishing its ‘Index’, it fulfills the purpose of projecting the moods of the stock market.

World’s first stock exchange was established in Antwerp, Belgium (then part of the Netherlands) in 1631, the London Stock Exchange opened in 1773 and then Philadelphia Stock Exchange (the first in the New World) opened in 1790. The first stock exchange in India, the Bombay Stock Exchange known as The Native Share and Stock Brokers’ Association was set up in 1870 (under a tree). Trading in the stock exchange takes place via the mediators known as the brokers, the jobbers, the market – maker.

1.4 **Financial (Economic) Variables:** - As we know there is no. of variables which affect the economy directly or indirectly, some variables are long term and some are short term, in this study researcher considered long term variables which known as macroeconomic variables, through various literature researcher found the another name of macroeconomic variables is financial (economic) variables that’s why instead of using macroeconomic variable researcher used financial (economic) variables.
1.5 **Motivation for Research:** - The Stock market is an important element of the economic structure of a country. The stock market plays a critical role in the development of the industry and commerce of the area that eventually affects the economic structure of the country to a great extent. The Stock market is viewed as a very significant element of the financial sector of any economic structure. Furthermore, it plays a crucial role in the mobilization of capital in many of the emerging economies. There are many factors which affect the stock market behaviour rapidly. The variation due to the different factors reflects its impact on the economy also. It is said that if one wants to discover the economic structure of the country, he/she should read out the behaviour of the securities markets. So, in the above context, there is a need to conduct present research to investigate the relationship between stock market and financial (economic) factors.

1.6 **Research Objectives:** - Researcher aimed at achieving the following objectives:

1. To examine the stock markets of India, U.S. and U.K. with regard to State influence.
2. To identify and analyse the financial factors in selected stock markets.
3. To investigate the relationship among India, U.S. and U.K. stock markets on financial factors.
4. To analyse the impact of economic financial factors on selected stock markets.
5. To recommend an action plan for sound investment decisions in international scenario.

1.7 **Research Design:** Research design pursued by the researcher is following.

1.7.1 **Research Assumption:**-The researcher hypothesized that selected financial (economic) variables and selected stock markets are independent.

1.7.2 **Data Description:** The researcher used the following data.

1.7.2.1 **Dependent Variable:** The Monthly returns of the S&P BSE SENSEX (BSE 30) index, S&P CNX Nifty index (NIFTY 50); Financial Times Stock Exchange 100 Index (FTSE 100) and Dow Jones Industrial Average (Dow 30) have been taken as the dependent variable for modeling the stock market volatility.

1.7.2.2 **Independent Variables:** Major financial (economic) variables affecting stock market are taken as the independent variables, Namely Gross Domestic Product (GDP), The Index of
Industrial Production (IIP), Consumer Price Index (CPI), Foreign-exchange reserves (also called forex reserves or FX reserves), International Crude Price (CP).

<table>
<thead>
<tr>
<th>Name of Variables</th>
<th>Symbol Used</th>
<th>Proxy Used</th>
<th>Source</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bombay Stock Exchange- Sensitive Index (SENSEX) &amp; NIFTY 50</td>
<td>SENSEX, Nifty</td>
<td>As a proxy to Indian Stock Market</td>
<td>IFS (Data Base of IMF)</td>
<td>Index</td>
</tr>
<tr>
<td>Financial Times Stock Exchange 100 Index (FTSE 100)</td>
<td>FTSE_100</td>
<td>As a proxy to United States Stock Market (New York Stock Exchange)</td>
<td>IFS (Data Base of IMF)</td>
<td>Index</td>
</tr>
<tr>
<td>Dow Jones Industrial Average (Dow 30)</td>
<td>DJI</td>
<td>As a proxy to United Kingdom Stock Market (London Stock Exchange)</td>
<td>IFS (Data Base of IMF)</td>
<td>Index</td>
</tr>
<tr>
<td>Consumer Price Index</td>
<td>CPI</td>
<td>As a proxy to inflation</td>
<td>IFS (Data Base of IMF)</td>
<td>Index</td>
</tr>
<tr>
<td>Crude Oil Price</td>
<td>CP</td>
<td>As a proxy to International Crude Oil Price</td>
<td>IFS (Data Base of IMF)</td>
<td>USD per Barrel (Average)</td>
</tr>
<tr>
<td>Gross Domestic Product</td>
<td>GDP</td>
<td>As a proxy to economic growth</td>
<td>IFS (Data Base of IMF)</td>
<td>National Currency Millions</td>
</tr>
<tr>
<td>Index of Industrial Production</td>
<td>IIP</td>
<td>As a proxy to economic growth</td>
<td>IFS (Data Base of IMF)</td>
<td>Index</td>
</tr>
<tr>
<td>Foreign-exchange reserves</td>
<td>FX</td>
<td>As a proxy to Reserve Assets</td>
<td>IFS (Data Base of IMF)</td>
<td>USD Millions</td>
</tr>
</tbody>
</table>

The justification of variables selection is supported by the table 1.2.

Table 1.2

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variables</th>
<th>Justification of Financial (Economic) Variables’ Selection</th>
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<tbody>
<tr>
<td>3.</td>
<td>FXRE</td>
<td>Maghayereh, Sikalao-lekobane, et, al.</td>
</tr>
</tbody>
</table>
Table 1.2
Justification of Financial (Economic) Variables’ Selection

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variables</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>CP</td>
<td>Sadiye Çiftçi, Martin Sirucek, Samveg Patel, Olowe, Rufus Ayodeji, Robert D. Gay, Jr., Hosseini, et, al.</td>
</tr>
</tbody>
</table>

1.7.3 Time Span: In order to develop models for measuring the impact of selected financial economic variables on BSE30, NIFTY 50, FTSE100 and Dow30, twelve years’ data from the 2001M04 to 2013M03 is taken.

1.7.4 Tools for Analysis: For the achievement of research objectives researcher makes use of the following tools.

1.7.4.1 Descriptive Statistics: Descriptive statistics is related to those methods, which are used in the treatment of numerical facts for the purpose of describing their original characteristics. These methods include editing of data, classification, tabulation, diagrammatic or graphical presentation, measures of central tendency, measures of dispersion, correlation, etc. All these methods help to make the description of numerical facts simple, systematic, synoptic, understandable and meaningful.

1.7.4.2 Econometric Regression Model: “The term regression was introduced by Francis Galton. Linear regression analysis is an inferential statistical technique that is used to learn more about the relationship between a independent variable (referred to as X) and dependent variable (referred to as Y) When there is only one independent variable, the prediction method is called simple regression. So, the regression equation $Y_i = \beta_0 + \beta_1 X_i + u_i$ where $Y_i$ is the dependent variable, $X_i$ is the independent variable, $\beta_0$ is the constant (or intercept), $\beta_1$ is the slope of the regression line which represent the strength and direction of the relationship between the independent and dependent variables and $u_i$ is random error term. Here, in our study we carried out this method to see the effect of financial economic variables on stock market.”
1.7.4.3 Augmented Dickey Fuller Test (ADF): “A series is said to be stationary if displacement over time does not alter the characteristics of a series in a sense that the probability distribution remains constant.” (Engel and Granger, 1991). In other words if the mean, variance and co-variance of a series should be constant over times, that series is said to be stationary.

1.7.4.4 Johansen Co-integration Model: To examine the interrelationship between stock market and selected financial economic variables such as: Consumer Price Index (CPI), Index of Industrial production (IIP), Gross Domestic Product (GDP), Crude Price (CP) and Foreign Exchange Reserve (FX), the study has employed the Johansen co-integration model. The concept of co-integration required that the set of variable should be integrated of the same order and their linear combination must be stationary. In order words co-integration means that despite being individually stationary, a linear combination of two or more time series data can be stationary co-integration of two or more time series data suggests that there is a long run equilibrium relation between them (Gujurati, 1995).

1.7.4.5 Granger Causality: “Although regression analysis deals with the dependence of one variable on other variable, it does not necessarily imply causation. In other world, the existence of a relationship between variables does not prove causality or the direction of influence. C. J. Granger (1969) proposed a test, named, “Granger Causality Test”, “For exploring the causal relationship (cause – effects) between the variables. Granger Causality test is a hypotheses test for determining whether one time series is useful in forecasting another or not. Granger proposed that if causal relationship exists between variables, they can be used to predict each other”.

1.7.5 Software Used: All analytical work of this present study is done by using E- Views 7 and gretl 1.9.92.

1.8 Limitations of the Study:

Every empirical work has to pass through certain limitations, so, this study also has its own limitations. Few unavoidable limitations of the present study are presented below:

- Data collected for the present study is completely secondary in nature along with 12years’ time span.
• While compiling the monthly data for the purpose of analysis, some adjustments have been made because data on some variables was available only on quarterly basis like Gross Domestic Product (GDP) and International Crude Oil Price (CP).

• The study is limited only to long term factors not short term.

• The study has focused the stock market behavior from the financial year 2001-2013. Therefore, financial (economic) variables statistics have been used and analyzed accordingly.

• The nature of this study has been primarily a desktop study. It could not incorporate the views and opinions of the stock market practitioners and investors on the sphere of effect of financial (economic) variables on stock market.